

**QUARTERLY REMEDIAL ACTION PROGRESS REPORT
IRON HORSE PARK SUPERFUND SITE - AOC 7 / OU3
August – October 2022**

Report Date: November 10, 2022

This quarterly progress report has been prepared on behalf of BNZ Materials, Inc. (BNZ), a Settling Defendant responsible for remedial activities at Area of Concern 7 (AOC 7) within Operable Unit 3 (OU3) of the Iron Horse Park Superfund Site located in Billerica, Massachusetts (Site). This report is being submitted to the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) to document the activities completed at the Site during the months of August, September, and October 2022 pursuant to Section VI.E. of the RD/RA Statement of Work.

1. Reporting Activities Completed and Ongoing

- Submittals
 - May, June, and July 2022 Quarterly progress report submitted on August 10, 2022.
- Deliverables in Agency Review
 - 2021 Annual Operation & Maintenance (O&M) Report submitted on February 10, 2022.
 - Revised Institutional Controls Plan (ICP) with draft Notice of Activity and Use Limitation (NAUL) and IC Design Statement submitted on September 18, 2018.
- Deliverables in Production
 - 2022 Annual O&M Report (February 2023)
- Deliverable Comments or Approvals Received this Period
 - None.

2. Site Activities Completed

- Semi-annual grass mowing was performed by O&M, Inc. on the landfill cap, swales, and detention basin on October 20, 2022.
- A semi-annual routine O&M inspection was completed at the Site on October 24, 2022; the inspection form completed during this visit is attached to this report.
- Groundwater monitoring was performed in accordance with the Groundwater Monitoring Plan on October 24-25, 2022.

3. Sampling Data/Results

- Laboratory analytical results from the October 2022 groundwater monitoring event are pending as of the date of this report.

4. Health & Safety Update

- None

5. Quality Assurance

- None

6. Community Relations Update

- None

7. Concerns Encountered and Corrective Actions Taken

- During the July 12, 2022 site visit, Woodard & Curran observed that no locks were present on the groundwater monitoring wells. Woodard & Curran installed new locks on the wells during the October 2022 groundwater monitoring event.
- Woody vine growth was removed from the perimeter fence during the October 24, 2022 O&M inspection and maintenance activity.

8. Anticipated Concerns and Proposed Solutions

- None

9. Ongoing Activities

- Deliverables – Next quarterly progress report (Annual O&M Report) to be submitted in February 2023.
- Field Activities – Post-Closure Operation & Maintenance

10. Anticipated Near-Term Project Schedule

- Routine O&M to continue in 2023

11. Meetings and Conference Calls

- None

**POST-CLOSURE INSPECTION FORM
IRON HORSE PARK SUPERFUND SITE AOC 7 / OU3**



Date: 10/24/2022 Weather: 53°, Light Rain
Time: 9:00 Inspector: Justin Guerra

Grading System: Excellent (E); Good (G); Fair (F); Poor (P)

Inspection Point	Requirement	Grade	Observations / Maintenance Performed	Maintenance Recommendations
Final cap cover	The cap cover will be inspected for signs of erosion. Inspectors will inspect slopes for erosion gullies and the bottom perimeter for sediment deposits. The cover materials will also be inspected for signs of vandalism or damage.	E	Some visual soil was observed on top of landfill. Soil appears to be from recent landscaping/mowing activities; no signs of erosion observed	None
Gas venting system	The gas vents will be inspected for functionality, noting whether any vents appear to be broken, leaning, or have any apparent signs of vandalism or other damage.	E	Vents intact with tight fittings, liner seal on vent stacks are good. GV-101, GV-102 and GV-104 lean slightly to the east. No damage was observed	None
On-cap drainage swales	The drainage swales will be inspected for their functionality and integrity. Inspectors will check for erosion, gullies, areas of ponding, sediment and debris.	F	Drainage swales appear to be in good working condition with no erosion or washouts. Approximately 6 burrows were observed by the edge of drainage swales around east corner of the cap. No piles of soil were observed in swales. Some reed growth was observed, and reeds were cut back today	Continue to monitor locations and observe for additional burrows or signs of diminished functionality.
Stormwater detention basin	The detention basin will be inspected for its functionality and integrity. Inspectors will check for damage to inlet and outlet structures, eroded or barren areas, basin erosion, embankment erosion, subsidence or tree growth, and the accumulation of sediment.	G	Good grass growth, no sediment accumulation observed. Puddled water was observed in the flow channels as well as in the south end of the basin from recent rain. Tire tracks were observed in south end of basin from recent mowing.	Continue to monitor any additional ponding in flow channels and clear any grass that may block the channels. Reeds and other plant growth removed from outlet structure area today.
Leachate generation	The bottom perimeter of the cap will be visually inspected for signs of breakthrough or leachate generation from beneath the cap.	E	No leachate or breakthrough was observed.	None
Odor generation	The inspector will note the presence of any odors originating from the asbestos lagoon cap, also noting weather conditions including temperature, wind, and precipitation.	E	No odor was observed.	None
Cover settlement / subsidence	A visual inspection will be conducted, noting any locations of obvious settlement, heaving, or ponding on the asbestos lagoon cap.	E	No obvious signs of settling, heaving, or ponding on the cap cover.	None
Vegetative cover	The vegetative cover on the asbestos lagoon cap will be inspected. Inspectors will note the location and size of erosion gullies, areas of minimal or dying vegetation, and the presence of any large woody plants.	E	One spot of thinned vegetation was observed by GV-104. No signs of erosion were evident. Three woody plants were cut flush to grade	Continue to monitor area by GV-104 for any potential future risk of erosion
Monitoring wells	Inspectors will assess the standpipe integrity of the monitoring well network, and confirm the presence of standpipe or PVC lids and locks where applicable.	F	Monitoring wells all appear to be in good condition. Locks were absent prior to inspection but were added to each monitoring well by W&C field team today. OW-20 appeared to have small chip in PVC at top edge	None
Parking lot pavement	Inspectors will assess the integrity and continuity of the paved parking area south of the lagoons, and note any areas of heaved or cracked or missing pavement.	G	Minor surficial cracking observed. Road to parking lot by main building is in need of repair	Monitor the cracks and repair/seal if they become more significant.
Site security	Inspectors will visually assess the fence, gates, and signage. The chain link fence around the cap and drainage system will be assessed for continuity and integrity. The vehicle and man-access gates in the fence shall be operable, and locked to prevent unauthorized access. The posted signage on the perimeter fence shall be present and visible. The inspector will note any evidence of trespass, attempted trespass, or vandalism.	E	Fences, gates, and signage are all present and in good condition. Vehicle tracks with puddled water were observed along the maintenance road; tracks are outside of the Restricted Area as defined in the draft ICP. Small animal burrows were observed by east gate and west gate approximately 2 inches deep.	Continue to monitor location of tracks and site use; no action recommended if site use continues to remain outside of the Restricted Area as defined in draft Institutional Controls Plan. Woody vine growth removed from fence today; continue to do so as routine maintenance
Maintenance road	The condition of the site maintenance road will be inspected for washouts, erosion gullies that would prohibit access, or excess vegetation surfacing through the road.	F	Pavement completed during construction activities along the maintenance road starting to break away along the edges with two potholes, about 2 ft across, were formed. however, this portion of the pavement is outside of the Restricted Area as defined in draft ICP. Perimeter grass path along fencing contained deep ruts by PZ-108 from tire marks	Continue to monitor road conditions.
Surveyed Benchmarks	The condition of any surveyed benchmarks will be inspected for signs of damage or subsidence.	E	Benchmark with pin located near vehicle access gate. Fire hydrant is also intact and protected.	None

P.E. Signature: Amy Martin Date: 10/25/22
P. E. Stamp:

